

Recovery Plan Action Status**Plan Name: Northeastern Bulrush****Plan Status: Final****Plan Date: 25-Aug-93****Lead Agency: USFWS****Lead Office: Pennsylvania Ecological Services Field Office****(814)
234-4090)**

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
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Northeastern bulrush (<i>Scirpus ancistrochaetus</i>)	1	1.1	Identify essential <i>S. ancistrochaetus</i> habitat.	Not Started			U.S. Forest Service, The Nature Conservancy, State Conservation Agencies, USFWS Regional Office 5, Private Organizations and Research Institutions	Other	Contract, Graduate Student, Species Expert	Party: For all SCA - Maryland - Natural Heritage Program (Department of Natural Resources), Massachusetts - Natural Heritage and Endangered Species Program (Division of Fisheries and Wildlife), New Hampshire--Natural Heritage Inventory (Department of Resources and Economic Development), New York--Natural Heritage Program (Department of Environmental Conservation), Pennsylvania--Natural Diversity Inventory (Department of Environmental Resources, The Natural Conservancy, Western Pennsylvania Conservancy), Vermont--Natural Heritage Program (Agency of Natural Resources), Virginia--Division of Natural Heritage (Department of Conservation and Recreation), West Virginia--Natural Heritage Program (Department of Commerce, Labor, and Environmental Resources). Habitat protection tasks will continue with discovery of new populations

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Northeastern bulrush (<i>Scirpus ancistrochaetus</i>)	1	1.2	Identify, monitor, and alleviate threats to each population	Ongoing Current	FY 2007	FY 2009	The Nature Conservancy, State Conservation Agencies, USFWS Regional Office 5, Private Organizations and Research Institutions	Research: Habitat Status, Research: Population Surveys	Contract, Internal Technical Assistance, Species Expert	plus 2000/yr for FY 1996-2002
Northeastern bulrush (<i>Scirpus ancistrochaetus</i>)	1	1.3	Secure permanent protection for known populations.	Not Started			U.S. Forest Service, The Nature Conservancy, State Conservation Agencies, USFWS Regional Office 5	Acquisition: Easement, Acquisition: Fee Title, Acquisition: Management Agreement	Contract	Roughly \$200,000 total costs estimated for land acquisition, with initial expenditures for high priority sites.
Northeastern bulrush (<i>Scirpus ancistrochaetus</i>)	2	1.4	Seek cooperation and support of private landowners and public land managers to protect occupied habitat.	Ongoing Current	FY 2006		The Nature Conservancy, State Conservation Agencies, USFWS Regional Office 5	Acquisition: Management Agreement, Management: Habitat Maintenance and Manipulation	Internal Field Assistance, Internal Technical Assistance	No costs itemized for this task.
Northeastern bulrush (<i>Scirpus ancistrochaetus</i>)	1	1.51	Coordinate with COE to ensure that permits issued do not adversely affect extant populations	Ongoing Not Current	Prior to FY 1995		U.S. Army Corps of Engineers, State Conservation Agencies, USFWS Regional Office 5	Work type not yet selected	Labor type not yet selected	No costs itemized for this task.
Northeastern bulrush (<i>Scirpus ancistrochaetus</i>)	1	1.52	Coordinate with state agencies and Natural Heritage programs to ensure full protection under applicable state laws.	Ongoing Current			State Conservation Agencies, USFWS Regional Office 5	Work type not yet selected	Labor type not yet selected	No costs itemized for this task.
Northeastern bulrush (<i>Scirpus ancistrochaetus</i>)	3	10	Develop an information packet/brochure.	Not Started			State Conservation Agencies, USFWS Regional Office 5	Other: Information and Education	Labor type not yet selected	Plus \$2000 (reprint)
Northeastern bulrush (<i>Scirpus ancistrochaetus</i>)	2	2.1	Resurvey sites thought to have suitable habitat	Ongoing Current	FY 2007	FY 2008	U.S. Forest Service, State Conservation Agencies, USFWS Regional Office 5, Private Organizations and Research Institutions	Research: Habitat Status, Research: Population Surveys	Contract, Internal Technical Assistance	
Northeastern bulrush (<i>Scirpus ancistrochaetus</i>)	2	2.2	Identify potentially suitable habitat for additional surveys.	Ongoing Current	FY 1995 - FY 1999		U.S. Forest Service, State Conservation Agencies, USFWS Regional Office 5	Other	Contract	Action Duration: 1-2 years

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Northeastern bulrush (<i>Scirpus ancistrochaetus</i>)	2	2.3	Survey potential sites for the presence of <i>S. ancistrochaetus</i> .	Ongoing Current			U.S. Forest Service, State Conservation Agencies, USFWS Regional Office 5	Work type not yet selected	Labor type not yet selected	Plus \$5000 in FY 97.
Northeastern bulrush (<i>Scirpus ancistrochaetus</i>)	3	2.4	Verify, monitor, and protect any additional <i>S. ancistrochaetus</i> populations.	Not Started			U.S. Forest Service, State Conservation Agencies, USFWS Regional Office 5	Work type not yet selected	Labor type not yet selected	Plus \$500/yr for FY 96-02.
Northeastern bulrush (<i>Scirpus ancistrochaetus</i>)	3	3.1	Develop consistency in the definition of plant terms with respect to <i>S. ancistrochaetus</i> .	Obsolete			State Conservation Agencies, USFWS Regional Office 5, Private Organizations and Research Institutions	Work type not yet selected	Labor type not yet selected	
Northeastern bulrush (<i>Scirpus ancistrochaetus</i>)	3	3.2	Develop methods to identify non-sexually reproducing individuals readily in the field.	Obsolete			State Conservation Agencies, USFWS Regional Office 5, Private Organizations and Research Institutions	Work type not yet selected	Labor type not yet selected	
Northeastern bulrush (<i>Scirpus ancistrochaetus</i>)	3	3.3	Describe methods for measuring the size and health of individual plants.	Not Started			State Conservation Agencies, USFWS Regional Office 5, Private Organizations and Research Institutions	Work type not yet selected	Labor type not yet selected	
Northeastern bulrush (<i>Scirpus ancistrochaetus</i>)	3	3.41	Develop techniques and methods for quantitative monitoring of five study populations.	Not Started			State Conservation Agencies, USFWS Regional Office 5, Private Organizations and Research Institutions	Work type not yet selected	Labor type not yet selected	
Northeastern bulrush (<i>Scirpus ancistrochaetus</i>)	3	3.42	Develop techniques and methods for monitoring other representative sites.	Not Started			State Conservation Agencies, USFWS Regional Office 5, Private Organizations and Research Institutions	Work type not yet selected	Labor type not yet selected	
Northeastern bulrush (<i>Scirpus ancistrochaetus</i>)	2	4.1	Intensively monitor five study sites for demographic data and trends.	Ongoing Current			State Conservation Agencies, USFWS Regional Office 5, Private Organizations and Research Institutions	Work type not yet selected	Labor type not yet selected	Plus \$5000/yr for FY 96-02

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Northeastern bulrush (<i>Scirpus ancistrochaetus</i>)	2	4.2	Monitor 20 other representative populations for general population and habitat information.	Ongoing Current			State Conservation Agencies, USFWS Regional Office 5	Work type not yet selected	Labor type not yet selected	Plus \$8000/yr for FY 96-02
Northeastern bulrush (<i>Scirpus ancistrochaetus</i>)	3	5.1	Determine and assess demographic characteristics of five study populations	Not Started			State Conservation Agencies, USFWS Regional Office 5, Private Organizations and Research Institutions	Work type not yet selected	Labor type not yet selected	Action Duration: 6-8 years. Plus \$2500/yr for FY 96-01.
Northeastern bulrush (<i>Scirpus ancistrochaetus</i>)	3	5.21	Determine the success and frequency of sexual reproduction/recruitment.	Obsolete			State Conservation Agencies, USFWS Regional Office 5, Private Organizations and Research Institutions	Work type not yet selected	Labor type not yet selected	Action Duration: 4-6 years. Plus \$100/yr for FY 96-99.
Northeastern bulrush (<i>Scirpus ancistrochaetus</i>)	2	5.22	Determine how environmental and habitat conditions affect sexual reproduction and recruitment	Not Started			State Conservation Agencies, USFWS Regional Office 5, Private Organizations and Research Institutions	Work type not yet selected	Labor type not yet selected	Action Duration: 4-6 years. Plus \$2000/yr for FY 96-98. Long time frame is necessary due to highly variable hydrological regime from year to year.
Northeastern bulrush (<i>Scirpus ancistrochaetus</i>)	3	5.23	Determine the success and frequency of asexual reproduction/recruitment.	Obsolete			State Conservation Agencies, USFWS Regional Office 5, Private Organizations and Research Institutions	Work type not yet selected	Labor type not yet selected	Action Duration: 4-6 years. Plus \$100/yr for FY 96-99.
Northeastern bulrush (<i>Scirpus ancistrochaetus</i>)	2	5.24	Determine how environmental and habitat conditions affect vegetative reproduction and recruitment.	Not Started			State Conservation Agencies, USFWS Regional Office 5, Private Organizations and Research Institutions	Work type not yet selected	Labor type not yet selected	Action Duration: 4-6 years. Plus \$2000/yr for FY 96-98.
Northeastern bulrush (<i>Scirpus ancistrochaetus</i>)	3	5.31	Under controlled conditions, determine requirements for seed germination and nodal shoot establishment.	Obsolete			State Conservation Agencies, USFWS Regional Office 5, Private Organizations and Research Institutions	Work type not yet selected	Labor type not yet selected	

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Northeastern bulrush (<i>Scirpus ancistrochaetus</i>)	3	5.32	Experimentally determine the habitat specificity and recruitment success of <i>S. ancistrochaetus</i> .	Obsolete			State Conservation Agencies, USFWS Regional Office 5, Private Organizations and Research Institutions	Work type not yet selected	Labor type not yet selected	Plus \$3000/yr for FY 96-99
Northeastern bulrush (<i>Scirpus ancistrochaetus</i>)	3	5.4	Investigate the significance of seed banking and seed dispersal.	Obsolete			State Conservation Agencies, USFWS Regional Office 5, Private Organizations and Research Institutions	Work type not yet selected	Labor type not yet selected	Action Duration: 3-4 years. Plus \$1000/yr for FY 96-98
Northeastern bulrush (<i>Scirpus ancistrochaetus</i>)	3	6.1	Characterize the habitat of the five study sites.	Not Started			State Conservation Agencies, USFWS Regional Office 5	Work type not yet selected	Labor type not yet selected	Plus \$2500 in FY 96. At least 3 years needed to characterize hydrological regime.
Northeastern bulrush (<i>Scirpus ancistrochaetus</i>)	3	6.2	Identify competitors and determine to what degree and under what conditions they may threaten <i>S. ancistrochaetus</i> .	Obsolete			State Conservation Agencies, USFWS Regional Office 5	Work type not yet selected	Labor type not yet selected	Plus \$500 in FY 96.
Northeastern bulrush (<i>Scirpus ancistrochaetus</i>)	2	6.3	Investigate the effects of land management practices on the bulrush.	Not Started			State Conservation Agencies, USFWS Regional Office 5	Work type not yet selected	Labor type not yet selected	Plus \$1000/yr for FY 96-98.
Northeastern bulrush (<i>Scirpus ancistrochaetus</i>)	3	6.4	Investigate the effects of beaver activities on the hydrological regime and demography of the bulrush	Obsolete			State Conservation Agencies, USFWS Regional Office 5	Work type not yet selected	Labor type not yet selected	Plus \$500 for FY 96-01
Northeastern bulrush (<i>Scirpus ancistrochaetus</i>)	2	7.1	Evaluate the genetic identity of individual plants.	Obsolete			State Conservation Agencies, USFWS Regional Office 5, Private Organizations and Research Institutions	Research: Demographic Studies, Research: Genetics	Labor type not yet selected	
Northeastern bulrush (<i>Scirpus ancistrochaetus</i>)	2	7.2	Determine the degree of intra- and inter-population genetic variability.	Obsolete			State Conservation Agencies, USFWS Regional Office 5, Private Organizations and Research Institutions	Research: Genetics	Labor type not yet selected	

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Northeastern bulrush (<i>Scirpus ancistrochaetus</i>)	2	7.3	Determine to what extent seed viability varies with clonality.	Obsolete			State Conservation Agencies, USFWS Regional Office 5, Private Organizations and Research Institutions	Work type not yet selected	Labor type not yet selected	Plus \$1500 in FY 96.
Northeastern bulrush (<i>Scirpus ancistrochaetus</i>)	2	8.1	Securely store seeds from each genotype.	Obsolete			State Conservation Agencies, USFWS Regional Office 5, Private Organizations and Research Institutions	Work type not yet selected	Labor type not yet selected	Plus \$500/yr for FY 96-02. Storage is an ongoing event.
Northeastern bulrush (<i>Scirpus ancistrochaetus</i>)	2	8.2	To safeguard the smallest populations, cultivate shoots or seeds and maintain in secure environment.	Obsolete			State Conservation Agencies, USFWS Regional Office 5, Private Organizations and Research Institutions	Work type not yet selected	Labor type not yet selected	Plus \$500/yr for FY 96-02. Maintenance is an ongoing event.